

REMARKS/ARGUMENTS

In the Office action dated September 19, 2005, the Examiner rejected claims 11 and 12 under 35 U.S. C. § 102(b) as being anticipated by U. S. Patent No. 5,832,187 to Pedersen *et al.* Claims 1-10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over '187 in view of U. S. Patent No. 5,734,335 to Brogi. It should be noted that claim 7 was cancelled in the last-filed amendment.

In the Specification, no changes

In the Claims, claims 1, 6, 10 and 11 are amended.

The Invention

The invention includes a system and methods for providing real-time, critical-alignment data regarding a fire perimeter through the gathering, from an airborne platform, isothermal data. The airborne system, using the method of the invention, provides a common-time-based visual overly relationship between data gathered from both a thermal images and an optical imager, and from on-board, airborne components, transmits a ready-to-use signal to one or more ground based locations. Specification, page 6, lines 1-6.

The Applied Art

U. S. Patent No. 5,832,187, describes a system using airborne platforms under the control of ground-based fire monitors, regardless of the type of airborne platform. One may go so far as to challenge the validity of '187 because the patentee suggests that weather and other surveillance satellites may be repositioned to monitor fires, and that such repositioning may be necessary to the method of the invention. This is a ludicrous suggestion. It simply will not

happen. '187, however, relies on ground based systems for data processing, *e.g.* col. 11, lines 55-61; does not provide a display of all data in a single 'visual overlay relationship,' as it displays information on plural devices, col. 13, line 58 to col. 14, line 30, and, contrary to the Examiner's contention, uses weather data gathered by satellite and ground-based observers, col. 16, lines 36-65, gathering ONLY wind speed and direction information by low-level airborne observing station(s). '187 further concentrates on the actual fire, or flame, front to detect problem areas. This is stated throughout the reference and in the claims therefor.

U. S. Patent No. 5,734,335 does not gather overhead-generalized, and then commonly used, critical alignment data. The data gathered by the '335 approach is definitively local ground-site specific. The concept of common utilization, as discussed herein in relation to the invention, pertains to the common use of aerial, overhead-gathered, critical alignment data which is relevant for all regions along an overhead observed fire line.

The Claims

Claim 1 has been amended to further clarify that the method of the invention identifies fire-line isothermal data, and that the data collected and processed onboard the airborne platform is transmitted to a ground station in the form of a common-time-based overlay to a terrain map. These are critical features of the invention because, unlike the '187 system, fire fighters have come to realize that the flame front is not necessarily the greatest area of concern when allocating resources to fight a fire: the isothermal area which defines an area where the temperature is close to the kindling point of the fuel is the critical area, and may or may not have optically visible flames. As previously noted, '187 does not teach or suggest this type of analysis

and information gathering and data transmission. Further, '187 describes multiple displays having various data displayed thereon; the method of the invention requires that all data be assembled and transmitted as an overlay to a terrain map, as described in the specification and drawing. See Fig. 2, 3 and 5, and related text. '187 uses weather data gathered by satellite and ground-based observers, col. 16, lines 36-65, gathering ONLY wind speed and direction information by low-level airborne observing station(s). These are only the most significant differences between the '187 reference and the elements of claim 1. The additional teachings of '335 do not cure the limitations of '187 to form a viable 35 U.S.C. § 103(a) reference. Claim 1 is allowable over the applied art.

Claim 2 is allowable because the data obtained by the applied reference is ground-based data; *e.g.*, LORAN C, a ground-based system, and is related to the flame front, as noted in the Abstract and throughout the reference. Claim 2 depends from claim 1, which requires the determination of fire-line isothermal data. Claim 2 is allowable over the applied art.

Claim 3 is allowable with its parent claims.

Claim 4 requires that positional information be gathered solely on the airborne platform. '187 and '335 both rely on ground-based positional information systems. The Examiner merely recites Applicant's claim and states that same is found in the '187 reference, without providing any specific location. Applicant has carefully reviewed the '187 reference, and finds no such support. Claim 4 is allowable over the applied art, or with its allowable parent claims.

Claim 5 is allowable with its allowable parent claim.

Claim 6 has been amended along the lines of claim 1 to require that it is fire-line isothermal data which is gathered, among other data, and that the gathered data is transmitted to a ground station as a common-time-based visual overlay to a terrain map. Claim 6 is allowable for the reasons set forth in connection with claim 1: the combination of the applied references do not teach or suggest provision of a system wherein the described data is gathered from an airborne platform and transmitted, already processed, to a ground based location.

Claim 8 is allowable with its allowable parent claim.

Claim 9 is allowable for the reasons set forth in connection with claim 4.

Amended claims 10 and 11 are allowable for the reasons set forth in connection with claims 1 and 6.

Claim 12 is allowable with its allowable parent claim.

In light of the foregoing amendment and remarks, the Examiner is respectfully requested to reconsider the rejections and objections state in the Office action, and pass the application to allowance. If the Examiner has any questions regarding the amendment or remarks, the Examiner is invited to contact the undersigned.

Provisional Request for Extension of time in Which to Respond

Should this response be deemed to be untimely, Applicants hereby request an extension of time under 37 C.F.R. § 1.136. The Commissioner is hereby authorized to charge any

additional fees which may be required, or credit any over-payment to Account No. 22-0258.

Customer Number

56703

Respectfully Submitted,

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I hereby certify that the attached Response to Office Action under 37 C.F.R. § 1.111 and CHANGE OF CORRESPONDENCE ADDRESS/CUSTOMER NUMBER are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. 1.10 on the date indicated above and is addressed to:

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Washington, D.C. 22313-1450

Robert D. Varitz